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SPIROMETRIC PARAMETERS IN MALNOURISHED GIRLS WITH ANOREXIA NERVOSA

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Repercussion of obesity for different organs and systems has been widely studied in the past. However, the effects of serious malnutrition on the respiratory system are less known. Anorexia nervosa is a frequent cause of malnutrition. The aim of the study was to determine spirometric parameters in a large cohort of 102 malnourished girls with anorexia nervosa admitted to the Department of Endocrinology between 2004 to 2008. Among patients, only 71(69,6%) of the girls aged 12-18 years (mean 15,6), mean BMI 16,1 kg/m², met the ATS/ERS forced expiratory maneuvers criteria for spirometry. Flow-volume loops obtained from these patients were taken into further statistical evaluation. The most frequently observed abnormalities were: decreased inspiratory capacity (IC) seen in 33 (46%) girls and decreased PEF observed in 45 (63%) of patients. Maximuml voluntary ventilation was within the normal range in all but 2 (2,8%) subjects. Diminished values below a lower limit of FEV1, FVC, FEV1/FVC, MEF50 were observed in 10 (14%), 13 (18%), 3 (4%), and 3 (4%) patients, respectively. We found relatively strong positive correlations between weight and the absolute values of examined parameters. We assume that spirometric abnormalities observed in anorexia nervosa are probably a result of respiratory muscle weakness and body mass loss.